DOCUMENT RESUME

ED 142 748 08 CE 011 760

AUTHOR Weisgerber, Robert
TITLE Mainstreaming the Handicapped in Vocational Education. Serving the Orthopedically Handicapped.
INSTITUTION American Institutes for Research in the Behavioral Sciences, Palo Alto, Calif.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.
PUB DATE 77
GRANT G007500391
NOTE 53p.; For related documents see CE 011 759-761, CE 778-781, and CE 011 868

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Agencies; Educational Resources; Federal Government; Guides; Handicapped Students; Higher Education; *Individual Characteristics; *Individualized Instruction; Inservice Education; Inservice Teacher Education; Instructional Materials; Instructional Programs; Learning Modules; National Organizations; *Orthopedically Handicapped; Post Secondary Education; Private Agencies; *Program Planning; *Regular Class Placement; Secondary Education; State Agencies; Student Placement; Teaching Guides; *Vocational Education; Work Experience Programs

ABSTRACT

One of a series of seven modules developed to improve the knowledge and skills of vocational educators who are or who will be serving the handicapped in regular vocational education settings, this module, concerned with the orthopedically handicapped student and with the health impaired student, is designed to (1) explain what orthopedically handicapped means and to explore the range of vocational capabilities of the orthopedically handicapped student and the ways in which the vocational educator can help these students develop their full vocational potential, (2) present the vocational educator with guidelines for establishing and carrying out a plan of individualized instruction for the orthopedically handicapped student, and (3) provide listings of resource agencies and further readings to assist the vocational educator who is working with the orthopedically handicapped. Important points in setting up an individualized instructional program for orthopedically handicapped students are considered and suggestions are made for modifying existing programs to overcome problems. Two final sections cover (1) bibliographic sources and resource agencies and persons to contact for assistance, and (2) a set of problems/questions designed to enable the vocational educator to check his or her understanding of the ideas presented in the module and to apply the principles discussed to his or her own teaching situation. (Author/HD)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED142748

MAINSTREAMING THE HANDICAPPED IN VOCATIONAL EDUCATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

PREPARED BY
ROBERT WEISGERBER

PROJECT DIRECTOR
ROBERT WEISGERBER
AMERICAN INSTITUTES FOR RESEARCH

SPECIAL CONSULTANT
WINNIE BACHMANN
CALIFORNIA STATE DEPT. OF EDUCATION

Serving the Orthopedically Handicapped

OE 011 760

PREPARED BY

Behavorial Science and Technology Group

American Institutes for Research
Palo Alto, California

SUPPORTED BY THE

Bureau of Occupational and Adult Education, Grant No. G007500391

United States Office of Education

1977

The development of these instructional materials was performed pursuant to a grant from the Office of Education, U. S. Department of Health, Education, and Welfare. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position.

ADVISORY PANEL

Ted Hawthorne	Coordinator, Career Development for the Handicapped State of California Dept. of Education
Ralph C. Bohn	Dean, Continuing Education San Jose State University
Emogene Driscoll	Vocational Coordinator for the Handicapped San Jose Unified School District
Robert Hendricks	Coordinator of Student Services Regional Occupation Program/ San San Mateo County
Dan Cahn	Director of the Center for Educational, Vocational, and Independent Living Skills Castro Valley Unified School District
Tom Kellis	Resource Teacher, Special Education Services Berkeley Unified School District

IN COOPERATION WITH

California State Department of Education	Office of Vocational Education Office of Special Education
. . . . .	
Berkeley Unified School District	Orientation Center for the Blind, Albany
Fullerton Joint Union High School District	San Diego City Regional Occupation Program
Grossmont Union High School District	San Francisco Unified School District
La Puente Valley Regional Occupational Program	San Jose Regional Vocational Center
Los Angeles City Unified School Dist.	San Jose Unified School District
Long Beach Unified School District	San Mateo County Regional Occupation Program
North Orange County Regional Occupational Program	Selaco-Downey High School, Los Angeles County
. . . . .	

The Consortium of the California State University and Colleges

STATE OF CALIFORNIA
DEPARTMENT OF EDUCATION

Vocational Education Support Unit

Statement of Understanding Between the Vocational Education Support Unit and the Special Education Support Unit

Background

The Vocational Education Act of 1968 (P.L. 90-576) has as one of its purposes the development of vocational training and retraining programs for handicapped persons.

To insure that such training is realistic with respect to the special needs of handicapped persons, the Act requires that state leadership in special education services and vocational education services enter into cooperative planning and program implementation arrangements.

Purpose

The purpose of this statement of understanding is to assure continued and augmented cooperation between the staffs of the Special Education Support Unit and the Vocational Education Support Unit of the State Department of Education in such actions as the following:

1. The joint development of provisions in the State Plan for the vocational education of handicapped persons in California
2. The joint review of those applications for funds for programs of projects providing benefits to handicapped persons.
3. The joint development of appropriate programs and project activities to meet the vocational education needs of the handicapped.
4. The joint development of appropriate inservice training of teachers for the handicapped and of vocational education teachers working with the handicapped.
5. To provide for intradepartment and interdepartment communication to facilitate program evaluation.

This statement of understanding is intended to formalize and recognize the working relationship that has long existed between these two services within the California State Department of Education.

For the Vocational Education Support Unit:

Signed: Samuel L. Barrett

State Director of
Vocational Education

For the Special Education Support Unit:

Signed: Leslie Brinegar

Manager, Special Education
Support Unit

Reprinted from California State Plan for Vocational Education. California State Department of Education, 1976.

STATE OF CALIFORNIA

Statement of Understanding Between the State Board of Education, the Board of Governors of the California Community Colleges, and the Department of Rehabilitation

Background

The Vocational Education Act of 1968 (P.L. 90-576) has as one of its purposes the development of vocational training and retraining programs for handicapped persons.

To insure that such training is realistic with respect to the special needs of handicapped persons, the Act requires that state leadership in special education services and vocational education services enter into cooperative arrangements.

Purpose

The purpose of this statement of understanding is to assure continued and augmented cooperation between the Department of Rehabilitation staff, the State Board staff, and the Board of Governors staff in such actions as the following:

1. The development of provisions in the State Plan for the vocational education of handicapped persons in California.
2. The review of applications for funds for programs or projects providing benefits to handicapped persons.
3. The development of appropriate programs and project activities to meet the vocational education needs of the handicapped.
4. The development of appropriate inservice training of teachers for the handicapped.
5. To provide for interdepartment communication to facilitate program evaluation.

This statement of understanding is intended to formalize the working relationship between these state agencies.

For the Department of Education and the State Board of Education:

Signed: Wilson Riles

Superintendent of Public Instruction, Director of Education, and executive secretary, State Board of Education

For the Department of Rehabilitation:

Signed: Hardy Tarone

Acting Director, Department of Rehabilitation

For the Board of Governors of the California Community Colleges:

Signed: I. W. Braxman

Chancellor and the executive officer, Board of Governors of the California Community Colleges

---

Reprinted from California State Plan for Vocational Education. California State Department of Education, 1976.

Instructional Section

Introduction 1

The Educator, the Student, and the Task 3

- The Vocational Educator as a Human Resource
- Understanding the Orthopedically Handicapped Student
- Considerations in the Vocational Task

Establishing a Plan for Individual Instruction 17

- Obtaining Basic Background Information About the Student
- Setting Goals and Criteria Appropriate to the Individual
- Considering the Instructional Framework
- Planning for Assessment and Program Modification

Carrying Out a Plan of Individual Instruction 25

- Indicators of Vocational Growth
- Overcoming Problems
- Documenting Efforts and Outcomes
- Follow Up

References 30

Introduction

This is one of a series of modules developed by the American Institutes for Research to improve the knowledge and skills of vocational educators who will be serving the handicapped in regular vocational education settings.

In this module you will be concerned with the orthopedically handicapped student and with the health impaired student. For simplicity, the term orthopedically handicapped is used predominantly in the module even though statements will generally apply to both groups. The module emphasizes those students whose handicapping condition is such that they can function in the regular classroom environment if given the proper support.

The general purposes of this module are:

1. To explain what orthopedically handicapped means and to explore the range of vocational capabilities of the orthopedically handicapped student and the ways in which the vocational educator can help these students develop their full vocational potential.
2. To present the vocational educator with guidelines for establishing and carrying out a plan of individualized instruction for the orthopedically handicapped student.
3. To provide listings of resource agencies and further readings to assist the vocational educator who is working with the orthopedically handicapped.

The module will consider important points in setting up an individualized instructional program for orthopedically handicapped students. Suggestions are made for modifying existing programs to overcome problems. A section listing resource agencies and persons to contact for assistance is included. Brief review questions are provided throughout the module. An assessment section is included which will enable the vocational educator to check his or her understanding of the ideas presented in the module and to apply the principles discussed to his or her own teaching situation.

The Educator, the Student, and the Task

> What do you have to offer the orthopedically handicapped student in a regular vocational education class?

The Vocational Educator as a Human Resource

When you arose this morning, used bathroom facilities, dressed yourself, ate breakfast, picked up your briefcase, got in your car, and drove to work, how long did the process take? How physically tired were you? What aspects of these tasks were difficult to accomplish? Many orthopedically handicapped persons find such "routine" tasks very difficult to accomplish because they involve physical exertion, strength, maneuverability, and the precise control of objects.

Since vocational education is characteristically an action-oriented curriculum, involving combinations of mental and motor skills, you may be wondering whether the orthopedically handicapped student really "belongs" in vocational education and whether you can do anything for him. The answer is yes to both concerns, and here is why.

As to the first point, the orthopedically handicapped student "belongs" in the same sense as do regular students...that is, he is entitled to the best preparation for a useful, productive adult life that public education can offer him. Further, recent legislation at federal and state levels and a new awareness among educators mandates that the orthopedically handicapped student (and other health impaired students as well) will have access to educational programming in the least restrictive environment consistent with the extent of their handicapping condition. In other words, they should have access to any curriculum from which they can benefit. As will be made clear in this module, the orthopedically handicapped student can benefit from vocational education classes, and benefit in a variety of ways.

As to the second point, as an experienced vocational educator you can help him in several important ways:

- You can identify and train him to develop technical skills that are within his present capability, and expand his capabilities with adaptive devices and techniques.
- You can instill in him the good work habits and self reliance that he'll need to sustain him in later work situations.
- You can provide emotional support so that he develops positive attitudes about himself, his accomplishments, and his potential.
- You can reduce barriers in his environment, particularly in the classroom and in the work experience station, when these unnecessarily add to the difficulties inherent in the task.

Miriam King, a consultant in Vocational Rehabilitation, meeting with the President's Committee on the Employment of the Handicapped, has summed it up nicely by stating:

> "The basic American Commitment is not to influence, not to power, not to all the marvelously cushioned comforts of a well-fed nation, but to the liberation of the human spirit, the release of human potential, the enhancement of individual dignity."

(The President's Committee on the Employment of the Handicapped, 1974)

One thing you must believe...the orthopedically handicapped are able to function effectively in a host of occupations. Would you have expected a service station owner who changes tires from his wheelchair? A young girl, paralyzed from the waist down, who delivers floral items using her specially equipped van? An order clerk, whose cerebral palsy has affected her left hand, her walking and her speech, but has set company records for accuracy? Your positive outlook...that vocational education is a "can do" curriculum and the handicapped are "can do" people... will generate results that will be gratifying to all concerned.

Review

1. Your own attitudes about the handicapped have a direct bearing on your believing that the orthopedically handicapped student can benefit from your class. Can you explain how doubt about your own ability to help is just one more unnecessary barrier in the path of the handicapped person?

2. Vocational education is a "can do" curriculum. It is based on the assumption that unskilled persons can develop skills and that there are various effective ways to teach them. How, then, is the vocational educator challenged when the learner may be confined to a wheelchair, or has difficulty in grasping and controlling objects?

Understanding the Orthopedically Handicapped Student

> How much do you know about orthopedic handicaps and do you understand how they can affect vocational development?

Of course, not all orthopedically handicapped or other health impaired persons have the same degree of handicap. Some are mildly involved, with problems that may not be readily apparent. Others are moderately involved, with problems that may be very evident but nonetheless can be dealt with in regular classes. Still others are severely involved, where their problems necessitate special classes and extensive assistance. The concern in this module is mainly with the first two categories.

Another source of variation is in the length of time the student has had the handicapping condition. The person who has been handicapped since birth is more likely to have made a satisfactory adjustment to the condition, than is one recently disabled due to injury or disease. On the other hand, recently handicapped students who were not hampered by disabilities in childhood generally bring a more normally developed set of experiences and abilities to the vocational training situation. Factors such as these can have a bearing on vocational readiness.

A third source of variation has to do with the stability of the condition, that is, whether it is constant or intermittent and whether it is apt to deteriorate or improve. Since vocational preparation is future oriented it's important to keep in mind not only what's practical now but what is likely to be practical for the student in later years. The caution here is to take a realistic but not pessimistic view.

The preceding variations serve to remind us that we are dealing with individuals, differing sharply in physical and health status and, accordingly, in their capacity to engage in particular vocational training programs. As individuals they have quite different motivations toward affection and recognition, for self-realization, and for security. They also have different levels of intellectual ability, some being considerably brighter and more alert than others. Finally, they have different levels of frustration tolerance and different ways of reacting to frustrating circumstances.

> All of this sounds somewhat overwhelming. It isn't. It simply means that you look at each orthopedically handicapped student as a new and unique person...with limitations to be sure, but also with strengths to build on.

It should be clear from the foregoing that you need to become informed about the student's physical condition. As you explore this area, you may encounter one or more medical terms with which you aren't familiar and you may wonder how the condition typically affects functional performance. The information that follows is necessarily abbreviated, and discusses conditions that may be encountered in regular vocational classes.

Types of Physical Disabilities. Orthopedic and other health impaired students include those with:

1. Congenital conditions and deformities- this includes a variety of physical problems affecting the individual since birth, ranging from heart defects to club feet to dwarfism. The physically evident deformities have relatively clear cut implications for what can be attempted. Less evident are any internal defects, yet these unseen conditions may prove to be more serious limitations on stamina and the effort to be expended in school or on the job.

2. Traumatic conditions and amputations- these include the physical disabilities resulting from accidents and operations. While the condition is usually stable and self evident, psychological damage is a special consideration.

3. Arthritis- this is an inflammation of the joints for which present medical treatment seems to be ineffective. It may be progressive and painful. Over time it often reduces dexterity and the ability to perform manipulative tasks.

4. Hemophilia- this is a disorder of the blood which impedes coagulation. This is a congenital defect, which requires constant caution against rupture of the blood vessels. This can result as readily from sharp bumps, sudden twists, or pressures as from cuts. Any body contact with this student should be minimized inorder to not imperil the student's life.

5. Poliomyelitis- infantile paralysis is a disease in which the spinal cord is damaged by a virus, paralyzing the limbs. Fortunately, the availability of Salk vaccine (in 1956) has greatly reduced its prevalence among the school aged.

6. Cerebral Palsy- this disorder of the nervous system (not a disease) results from brain damage of incomplete development. Unfortunately, while polio has been on the decline the palsied seem to be in greater proportion among the school aged youngsters...on the order of 30% of the physically handicapped population. In brief, cerebral palsy results in muscular malfunction, either being spastic, rigid, jerky, uncontrolled, uncoordinated, or some combination of these. Perhaps the most disturbing aspect of cerebral palsy is that in the majority of cases not only is there a primary motor disability but there are secondary handicaps. These secondary handicaps can be of serious consequence, for they can include mental retardation, visual defects, speech defects, hearing defects, or combinations of several. More than half of the cerebral palsied students will have speech defects. When this is coupled with poor facial muscle control (drooling, etc.) it can give a false impression of mental retardation. In spite of all these complexities, the cerebral palsied represent a physically handicapped group with considerable vocational potential and continually surprise those around them with what they can do.

7. Epilepsy- the epileptic is well known as a person subject to seizures of different durations and degrees but who otherwise appears normal. Epileptics, once understood by those around them and aided through medication, have relatively few seizures. On an individual basis this can lead to fewer problems in selected vocational contexts.

8. Spina bifida- this is a common birth defect causing disability in early childhood. Its effects are generally leg paralysis and (of more severe consequence for vocational purposes) lack of control over the elimination of body wastes. In some instances hydrocephalus (enlargement of the head) is also present. Excepting

the latter complication, persons with spina bifida can function within the normal range of intelligence.

9. Other health impaired- among these are the diabetics (who can function effectively given a proper diet and insulin treatment), the respiratory disordered (asthma or allergy), those with nephrosis (a degenerative kidney condition) and those with osteomyelitis (a spreading inflammation of the bone). The educator should be aware of impairments that are apparent and make appropriate allowances.

As diverse as the orthopedically handicapped group appears to be, they tend to have some things in common...characteristics that the vocational educator should know about and allow for when teaching and when arranging for work experience.

Personal and Social Characteristics. The presence of crutches, a wheelchair or other appliances that call attention to the disability are unavoidable facts of life for many othopedically handicapped students. Stereotyped reaction by the public (staring, ridicule, or avoidance) are frequently encountered, drawing unnecessary and unwanted attention to the handicapped person. Fortunately, this kind of reaction is diminishing as more orthopedically handicapped persons take active roles in society and more matter-of-fact reactions are occurring. The same matter-of-fact acceptance is appropriate in the classroom and at the work station.

Whether the individual's impairment is highly visible, such as paraplegia, or invisible, such as hemophilia, that person is very conscious of being restricted in the kinds of things he can do and the places he can go. The frustrations that result are sometimes channeled into inappropriate social expression. Kirk (1972) names seven ways this frustration may be displayed:

1. The individual may become verbally aggressive.
2. The individual may blame other people.
3. The individual may repress his desires.
4. The individual may withdraw into fantasy.
5. The individual may degrade the original goal.
6. The individual may act less mature.
7. The individual may compensate for his disability by shifting to different interests.

Non-handicapped persons react in negative ways to their frustrations just as do the handicapped, except that their frustrations are generally not as frequently encountered, and their outward expression of the frustration may be more readily tolerated. The lesson to be learned is a simple one, provide a success oriented climate and frustrations will be minimized.

Basic Skills Characteristics. There is a wide range of performance among the orthopedically handicapped in reading comprehension, computational skills and general information. For many, once the physical disability is provided for, they can function quite normally though they may tire more quickly. The frequency of secondary disabilities among some orthopedically handicapped students, particularly the cerebral palsied, contributes to their lower overall functioning. What this adds up to is that you'll need to establish the basic skills ability of each orthopedically handicapped student independently rather than assume it.

Sensory-Motor Characteristics. Here again a wide range of performance exists among the orthopedically handicapped. As examples, the adult diabetic may lose sensitivity in the fingertips; the upper torso development may be increased for paraplegics as a function of therapy and the physical demands placed on those muscles; and the palsied are apt to have poor coordination and muscular control, but their work tolerance can be developed satisfactorily. It is also true that slight differences are important differences. In other words, even a modest amount of strength and manipulative ability can be capitalized on and increased through properly designed appliances and aids.

Build on strengths, supplement existing skills, and be aware of the "leverage" that can be gained through the application of human engineering principles.

Review

► 1. Specify one handicapping condition that is orthopedic in nature, and another that is due to some other health impairment.

► 2. For each of these specified conditions, is the condition likely to be degenerative or stabilized? Is the condition apt to have a secondary or associated handicap that must also be considered?

► 3. Regardless of the nature of the condition, positive expectations about vocational training are warranted. Give three reasons why this is so.

Considerations in the Vocational Task

Proper matching of the handicapped individual to vocational training requires a knowledge of the individual and the tasks involved. Analysis of job tasks, then, is not simply a breakdown of the steps involved, but also a consideration of the work tolerance and physical requirements, such as stamina and strength, the intellectual, social and motivational requirements, and the communication requirements. Of special importance to the orthopedically handicapped are two more considerations, whether the task requires a high degree of mobility and whether the task is to be accomplished in a favorable work environment. Fortunately, the educator can differentiate tasks with related occupational areas so as to accommodate special needs of individuals.

Work Tolerance and Physical Considerations. For many young persons the opportunity to learn in order to earn is both an interesting and exciting prospect. Many jobs, however, turn out to be routine, repetitive, and demanding of concentrated effort over extended periods of time. For example, the work of a telephone receptionist calls for a quick, attentive person, yet one who will also have the patience to wait when there are long gaps between calls. Generally, orthopedically handicapped persons have the patience required, though they need relief just as do the non-handicapped.

In a similar vein, certain types of jobs require extended physical effort. These job tasks need analysis in several ways:

- determining the essential manipulative requirements,

- determining the amount of stamina or force required, and
- determining the frequency and duration of these physically oriented tasks.

Of these, analysis of the manipulative requirements may be the most complex and most significant for matching the person and the job. Some of the questions to be asked are:

- Does it require gross motor skills such as climbing (balance and maneuverability)?
- Does it require fine motor skills such as lettering (smoothness and precision)?
- Does it require grasping and holding objects (one or two handed)?
- Does it require lifting or moving (weight and distance)?
- Does it require reaching (height and direction)?

If the answer is yes to one or more of these questions don't automatically count the physically handicapped person "out." As will be explained more fully later, much can be done to change the person and the job.

> It is not possible in this module to identify jobs that are appropriate or inappropriate to the orthopedically handicapped. Rather, it is an individual consideration (Can he do the job as it now stands?) and a specific task consideration (Can the job be altered, the work station modified, or other adjustments made?).

Intellectual, Social, and Motivational Considerations. On the intellectual side of things you will need to keep in mind that physical impairments, even those caused by brain damage, don't automatically signal lowered mental functioning. Although cerebral palsy may be associated with brain damage, you should not assume that your student is incapable of learning intellectually oriented vocations, even if he has this disability.

Take time to study the individual's ability to reason, to remember, and to apply mental processes to his work. Don't forget to allow for mental fatigue...tiredness doesn't equal stupidity. Likewise, slurred speech doesn't mean that thought processes are poor.

Social considerations are not necessarily a basis for exclusion of the orthopedically handicapped from an occupation, though it surely is a basis for applying common sense when preparing students for work in which they'll meet with success rather than failure. From a social perspective, the orthopedically handicapped person can function well in work contexts where co-workers are understanding and cooperative. To maintain positive co-worker relationships it's important that the orthopedically handicapped person appreciate the importance of getting to work on time and otherwise fulfilling the standard job responsibilities that all workers share. Where the public is directly contacted the orthopedically handicapped person may be at a disadvantage. This is particularly true where cosmetic appearance is a factor (e.g., drooling is socially unacceptable, but if the individual can't feel it and prevent it then it constitutes a real limitation).

Regarding motivational considerations, the orthopedically handicapped aspire to promotions and career advancement, and to recognition and acknowledgment of their services and skills. For this reason, it is appropriate to maintain a long-range perspective when matching the young orthopedically handicapped person to an occupational field. Are there good chances of finding a job in the field? Will there be an opportunity to grow and take on additional responsibility commensurate with his or her potential and the nature of the disability?

Barriers to effective employment often revolve around the individual's capacity to speak or write clearly and see and hear adequately, in other words to communicate effectively. These functional skills may be quite unaffected by the particular kind of orthopedically handicapped condition or they can be seriously affected.

For example, some orthopedically handicapped persons may have difficulty in expressing themselves clearly in speech or writing to strangers but can communicate quite adequately with co-workers. Others may find it difficult to hear what is said or see what is shown as readily as the non-handicapped, but not necessarily to the detriment of the job.

Mobility Considerations. During a national conference focused on their needs, the comment was made that "mobility is everybody's right, but the handicapped people have been frozen in place." (President's Committee on the Employment of the Handicapped, 1974). This remark has two dimensions, one relating to societal neglect and the other to their very real problems in moving freely from place to place.

Take the case of H. Keith Russell, Handicapped American of the Year. Mr. Russell was paralyzed by polio twenty years ago, but has continued to be an active man. Three years ago during a TV interview, Mr. Russell was in the process of boarding a bus, when the bus pulled away from him. Situations such as this have occurred frequently to the handicapped. Soon after this publicly viewed incident, the American Transit Association undertook to develop specifications for small buses suitable for a demand/response type of service.

Nevertheless, as we well know, the main public transportation systems have not yet been mobilized and modified to serve the orthopedically handicapped. Even where physical access is a lessened problem regulations can still be a stifling barrier. For example, wheel chair occupants can be accomodated in commercial aircrafts, but battery driven wheelchairs may not be permissible on board, and limitations may be imposed on the numbers of handicapped that may be boarded. At the local level, school district mini-buses may transport the orthopedically handicapped for vocational training, using special funds for the purpose. The problem still is, will the orthopedically handicapped student be able to find dependable and suitable transporation to work after leaving the vocational education program?

Physical barriers are often the single greatest cause of concern (and frustration) faced by the orthopedically handicapped trainee and job applicant. Elsewhere in this module this will be given more attention. For now, remember that this is a surmountable problem, and special funds can be tapped for the purpose of reducing these barriers.

Work Environment Considerations. Much of what was said previously applies here as well. The work environment (and the training environment) is a place where people interact, where physical activities take place, and where an employee (or trainee) should be expected to perform under reasonable work conditions. Certainly, no hazards should exist nor unnecessary obstructions be present. Common sense should prevail.

Various guidelines have been proposed. Here are some to consider:

- walks- adequate width and slope for maneuvering (48" width suitable)
- ramps- adequate width, slope and surface for accessibility (1":12" slope)
- curbs- sloped at intersections (1":12")
- stairs- no projecting overhang on each step, rises 7" or less, while minor rises between levels should be tapered
- floors- non-slippery surfaces
- building entrance- at least one primary entrance accessible by wheelchair, elevators for multi-level public buildings
- doorways- width adequate for wheelchair access, doors not revolving (32" width recommended)
- work area, corridors, and parking lots- room for wheelchair access and turning (60" clearance)
- restrooms- width of stalls (36") and height of mirror, towels, etc. (40") handrails in stalls (33")
- controls- buttons, switches, telephones, should be accessible from wheelchair (18" at lowest, 40" at highest), fountains (33" high) with upfront spouts and controls
- Machine areas- adequate access to work station (48" width)

Special assistance in planning for facilities construction modification for the handicapped is available from:

California Department of Rehabilitation
Mobility Barriers Section
Dan Schott, State Supervisor
830 K Street Mall, Sacramento, CA 95814

Additional information is available from the American Standards Association.

There is no question that a student (and a worker) needs free and ready access to his supplies and tools, and that he should have access to the lunchroom, lockers or other general facilities. Further, if he sits at his work station, he should be able to reach things if they are within a 30" radius. In summary, the physically handicapped need a "fair chance environment." They are entitled to it...it's really nothing more than you expect for yourself in order to do your job.

> One orthopedically handicapped person could not perform a desk job simply because she couldn't reach items on her desk. By adapting a revolving top to the desk her dependence on co-workers went down and her work efficiency went up.

Review

► 1. Earlier in this module an example was given of the actions you customarily take for granted as you arise and come to work each day. It was pointed out that these activities may prove very difficult for the orthopedically handicapped. Select an occupational area with which you are thoroughly familiar. Using your current curriculum guide, trace the specific actions required and identify how the following considerations are affected:

- work tolerance and physical requirements
- intellectual, social and motivational requirements
- communication requirements
- mobility
- work environment

Establishing a Plan for Individual Instruction

How would you set up a program of instruction for orthopedically handicapped students?

As a vocational educator, you already know that some people are suited to certain jobs more than others; that all students are not alike in their rate of training nor the level of skills they develop; and that each individual has unique potential that can be tapped and turned to advantage. As you approach the task of instructing an orthopedically handicapped student together with regular vocational students you'll likely find that the orthopedically handicapped student excels in some ways and falls behind in others. As is true for all students you'll want to build on the individual's strengths and try to overcome the problem areas.

Obtaining Basic Background Information About the Student

Individualization of instruction for any student, and especially the orthopedically handicapped one, is most meaningful if you know what information is useful, where to get it, and how to interpret it. Then you will be in a position to modify (not throw out and start over) your usual classroom procedures to benefit the handicapped student.

Special Education and Medical Information. First of all, you need to know about the condition itself. This information should be available within the school district or at the county level.

- Try to obtain a professional description of the nature of the disability and any limits it may have on the kinds of physical tasks the student may safely undertake.
- Establish whether the general health of the student is OK and what kind of attendance pattern may be expected.
- Check whether physical therapy or occupational therapy is underway or whether it is contemplated.
- Clarify what special equipment and help may be available through special education services, or medical-engineering assistance (such as accommodative devices) if there is reason to believe that career goals would be better reached through such means.

Academic, Personal and Social Development. For each individual, it is helpful to learn whether

- basic academic skills, such as reading and computational skills, are up to an acceptable standard for the kind of vocational training being planned
- personal skills, those involving self-care, self-control and self-actualization are well developed or need special attention
- social skills, particularly those involving other classmates, are at a level that will permit teamwork and full participation in class activites.

> An audience comment directed to the President's Committee on Employment of the Handicapped is relevant here.
>
> "Very little effort is put into non-vocational rehabilitation, although this is of tremendous importance. Work habits do not start at age 21, when a handicapped person seeks employment, nor is employment the whole life. There is need for rehabilitation in the so-called activities of daily living areas."
>
> (The President's Committee on Employment of the Handicapped, 1974)

Vocational Readiness. In recent years, career education has been expanded steadily into the early grades. Consequently, vocational classes in the future may serve a student population that is much better informed about vocational options than is currently the case. However, there is likely to remain an important role for systematic pre-vocational evaluation of each new trainee in order to determine

- what particular vocational interests he has and how much he has been informed about other, functionally similar, vocational areas
- whether he has had any occupational or skill training, even at a initial or exploratory level
- whether he can understand and follow directions, apply safety rules, and
- what vocational aptitudes can be revealed through testing and job sample assessment techniques.

Where to Get the Information. The following is a list of some of the alternative sources you might contact. You will want to observe local safeguards on privacy, however.

Special Education and Medical Information	Sources
• Specific condition and status of disability • Physical coordination and limitations • General health history	• Special educator, physician, school nurse, physical therapist, parents
Academic, Personal and Social Development	**Sources**
• Basic academic skills	• School records, special educator, other teachers
• Social effectiveness	• Counselor, student, parents, teacher
• Personal adequacy	• Counselor, student, parents, teachers, school psychologist
Vocational Readiness	**Sources**
• Existing or potential job-relevant skills and interests	• Special educator, rehabilitation counselor or other community agency assessment center • Testing of the student

A team approach should be emphasized in planning and implementing a program of instruction. First and foremost, you should enlist the cooperation of the special educator in interpreting the information and subsequently in determining realistic goals for the individual student, developing a workable plan of instruction, and dealing with any problems that arise. The special educator in your school may be a special class teacher, a resource teacher assigned to work with you in training the handicapped student, or an itinerant teacher who is available for a given period of time each week.

How to Interpret the Information. The information you've collected is a mixture of facts and opinions, and may seem contradictory at times. You will want to select information relevant to vocational training evaluation though it may have been gathered with other settings in mind. While you'll want to take medical information quite literally, you will want to be cautious about either overly glowing or despairing anecdotal remarks. Don't prejudge the student based on the obtained information; it's meant to help, not hinder, your relationship.

> The saying, "the past is prologue to the future" may not be altogether true for the orthopedically handicapped. A number of them have more pluck and persistance than you might expect. News media frequently remind us of near heroic feats by the disabled (cross-state wheelchair marathons, etc.), of their adaptiveness (basketball in wheelchairs), and their capacity for rising to a challenge (the California Department of Rehabilitation is headed by a quadraplegic holding a master's degree).
>
> At the classroom level you will find plenty of unexpected, happy discoveries. Your job is to make the unexpected, happy discoveries possible.

As you interpret the newly obtained information, together with the special educator, try to:

- Keep an open mind about the student who may "blossom" in your class.
- Look beyond the handicap to develop a picture of the whole person.
- Relate the information to a plan of action by
  a) looking for limits and cautions,
  b) looking for ideas and suggestions,
  c) identifying persons who can help in resource capacity.

Review

► 1. Realistically, you may have very little time available to search for information about one of your students, even if he's a special one. If your time is limited, who would you contact and what would you most want to learn?

► 2. In what ways could developing an understanding of the whole person change your instructional approach?

Setting Goals and Criteria Appropriate to the Individual

If you believe, as you should, that the handicapped student has vocational potential then it is reasonable to involve him in the planning process that will lead to realizing that potential. He doesn't know your course, the vocational field, or all the options that may be open to him, that's true. However, he does know what he'd like to try, and quite possibly he'll open up with constructive statements, questions and concerns if given the chance.

Setting Individualized Goals. In the long run, the name of the game is to develop skills to a level where employment is possible. It's wise to focus not only on motor skills that are generalizable to many job situations, but also on proper work habits and how to work effectively with others.

These are overall goals, however, and it is very important that specific, near term study objectives are known from the outset. How these objectives relate to the overall goals shouldn't be a mystery, either. You should make it clear that the ability to produce products to a standard, to work alone, to take responsibility, and to accept supervision are important aspects of getting and keeping a job. Discuss these kinds of goals with the student, making each one as concrete as possible.

Performance criteria should be concrete and explicit. Let the student know how his work will be judged. Stress that assessment of his work is going to be aimed at what he shows he can do, not what he can't do. In other words, he is "earning credits toward a job." Each training task he accomplishes within an acceptable quality range will become a part of his "credentials," proving to a prospective employer that he will be an asset rather than a liability.

Don't forget to allow for interim feedback to the orthopedically handicapped student on how he is doing. He'll need positive reinforcement and encouragement, not only on how he's accomplishing tasks but also in terms of his personal development.

Review

1. The setting of goals for the orthopedically handicapped student should definitely involve the student.
2. Who else might be involved in the setting of goals with the handicapped student? In what way?
3. If you found that the orthopedically handicapped student was falling behind in meeting his and your expectations, what actions might be appropriate on your part?

Considering the Instructional Framework

As you plan your instructional strategy you should check yourself by asking the following questions.

- Have I fully and appropriately planned to utilize resource personnel? These include the school-affiliated special educator, occupational or physical therapist, media specialist, classroom aides, and other relevant persons directly involved in vocational education. It also includes non-affiliated persons such as cooperating employers, community service workers, rehabilitation counselors, volunteers and others who can acquaint the orthopedically handicapped student with the world of work.
- Have I reviewed my materials and equipment resources for adequacy in meeting the needs of the orthopedically handicapped student, and taken steps to obtain appropriate materials and equipment through school channels? If the school doesn't have what you feel you need you can request assistance from the regional learning center or a nearby associate center serving the handicapped. (see the Resource Section of this module). The vocational education advisory committee can suggest equipment modifications and assist in obtaining special equipment and materials.
- Have I reviewed the physical facilities and taken steps to modify them if necessary? You'll want to consider the overall room layout, seating and work stations, special equipment attachments, and access to supplies and other facilities in terms of whether they are manageable from a wheelchair or other physical limitations faced by the individual.
- Have I carefully planned what's to be included in the curriculum? The content should be job-relevant, appropriate for the physical limitations of the handicapped person, structured in a way that will evidence specific task competencies, and coordinated to the extent possible with the student's own career aspirations.

- Have I re-examined my teaching methods? Presentation methods should assure that the handicapped person can see and hear what is being demonstrated; that he has access to personal assistance, (perhaps through a buddy system,) when he needs it to accomplish some intermediate level task; that individualization has been emphasized to the maximum extent possible.
- Have I personally developed a positive attitude? An honest self-appraisal of your patience and expectations is in order; you should be prepared to maintain a positive reinforcement style in the face of problems and shortcomings, and an awareness through close observation of personal and vocational progress.

Participation of Concerned Others. It's unlikely you'll want to involve other persons so much that either you or the student become dependent on them. Clearly, you are trying to develop self-reliance and competence on the part of the orthopedically handicapped student, but to reach that goal others can be of help. How do you know when and where to seek help and involvement? There's no real answer to that because it depends so much on the individual student involved and the varying availability of different resource persons. However, experience has shown that:

- during pre-planning the special educator (resource teacher or itinerant teacher) will be particularly helpful
- during initial weeks of instruction a classroom aide may be very helpful
- assistance by other students is useful throughout the course
- eventual placement for work experience or employment can be facilitated through coordination with volunteer agencies, the Dept. of Rehabilitation, the regional CETA office, and the business community itself.

Planning for Assessment and Program Modification

Let's assume that your plan for instruction may be based on good information, that it provides for the input of concerned others at appropriate times, and that it anticipates potential problems (thereby minimizing them). You'll still need to look objectively at your plan from time to time, and be sufficiently flexible to recognize that even a good plan can be made better. Hindsight, or the "If-only-I'd-done-it-this-way" approach, is mostly wishful thinking. However, hindsight can become constructive if it is taken into account in the planning of subsequent instruction.

Evaluation that considers interim results in order to restructure instruction is called formative evaluation. This is the approach you should use. We'll comment further on testing in the next section.

Review

► 1. We listed six main points under the heading "Considering the Instructional Framework." If your planning reveals that the physical facilities aren't "up to par" should you

a) postpone the student's enrollment until the facilities are improved?

b) proceed on the basis that the student will be better prepared for the realities of the world of work if the facilities are less than desirable?

c) make do and adapt as best you can?

Justify your choice in terms of benefits to be derived by the student.

Carrying Out a Plan of Individual Instruction

How will you monitor progress and overcome problems which arise during training?

Careful planning serves as the basis for an effective program. However, you'll need to modify those plans in the light of what occurs when you actually work with the orthopedically handicapped student.

Indicators of Vocational Growth

As you proceed with your individualized plan of instruction you will want to collect objective measures of student proficiency as well as observed indications of improvement. Each has a rightful place in any assessment of the whole person's potential.

Objective Assessment of Proficiencies. Hopefully, you've planned your program of objective testing to show whether the student has achieved the milestones you jointly set. That is, your testing program should be criterion referenced. It should show, for each significant instructional objective, the degree to which the student a) exhibits the required knowledge, and b) can apply it to the task at hand. For example, in electronics, knowledge might be demonstrated through multiple choice matching of schematic symbols to names of component parts, thus showing that the person has committed the essential information to memory. Application of this knowledge might be demonstrated by the "reading" of a schematic diagram to the instructor.

If the learning objectives were set cooperatively then it is not a surprise to the student that he must demonstrate their mastery. Incentives and positive reinforcement should accompany attainment of each objective, especially in the early part of the course.

It makes little sense to use normative grading of students in the vocational class. Using letter grades describes his performance in relation to his classmates in the subject being tested, but it would add very little to what you and the student already know. It's not very useful to prospective employers either.

Observational Evidence of Vocational Growth. As you observe the way the student works and interacts with others, it's a relatively simple matter to maintain a progress chart or fill out a checklist. Progress charts have an advantage in that the student can see himself gaining in competencies. Check lists have the advantage of simplicity and ease of use. Further, they can be easily carried to any level of specificity. The "list" below is meant to suggest topics for consideration and is therefore incomplete. You would probably want to add other items and revise the list in keeping with your own vocational functions and concerns.

Observations of Student	Progress OK	Possible Modifications
1. SELF REGARD	___	
Takes pride in accomplishments ___		_____
Refers to self in positive terms ___		_____
Accepts handicap realistically ___		_____
2. INTERACTIONS WITH OTHERS	___	
Initiates contacts with others ___		_____
Works as a team ___		_____
3. VOCATIONAL SKILLS	___	
Improves manual skills ___		_____
Improves communication skills ___		_____
Improves reasoning skills ___		_____
4. WORK HABITS	___	
Performs work in timely manner ___		_____
Maintains equipment properly ___		_____
Follows safety precautions ___		_____

It's clear that the need for systematic evaluation is important for handicapped and regular students. In his book Rehabilitation Medicine (1971), Rusk lists four specialized purposes for evaluation. Because these purposes are oriented toward rehabilitation engineering, they particularly apply to any orthopedically handicapped student who needs special equipment to enable him to functior effectively. They include

- Evaluation of the activity to be performed and the physical requirements for it
- Evaluation of the psychological response to the use of the equipment
- Evaluation of the materials, and their design, to be used in the construction of the device
- Evaluation of the role of the device in the rehabilitation of the individual

As you carry out your student evaluation it might be well to keep these four types of special evaluation in mind even though you may not want to formally measure them.

Overcoming Problems

Problems will very likely arise from time to time. For the most part they'll be minor and easily correctable. Others could be more troublesome to correct and therefore should be minimized from the outset by planning appropriate methods for dealing with them. Some of the more relevant ones for the orthopedically handicapped are:

- Physical accidents and liability. If you have exercised reasonable safeguards in the classroom then the regular school district liability requirements have been fulfilled. If the student topples from his wheelchair or has a seizure or other emergency, follow the advance procedures that you've worked out with the special educator or principal.
- Dealing with problem behaviors. If the student becomes frustrated at not being able to accomplish things he may become defensive and withdraw, or aggressive and monopolize attention. If the student begins to exhibit such behaviors don't react negatively, but rather implement even more strongly your planned positive reinforcement approach.

- Surmounting instructional blocks. If the student seems stumped, not understanding or unable to physically accomplish a task, it's up to you to implement alternative strategies. Don't give up too soon, the student may "come through" quite well in the long run.
- Approaching and working with employers. If the student is orthopedically handicapped you can expect avoidance behavior on the part of some potential employers. Again, your best solution is to present criterion evidence to describe what the student has demonstrated he can do. In making preliminary arrangements for work experience, for example, a new contact with a potential cooperating employer should emphasize a) the work record b) the community service aspect of hiring the handicapped, and c) your willingness to work closely with him during a "trial period." Further, the new employer should be assigned the more capable handicapped student (if there are several) until he sees for himself that his anxieties were unnecessary.

Documenting Efforts and Outcomes

As you carry out the instruction and assessment of the handicapped student you should document both your efforts and the outcomes that resulted from those efforts. Just as you wanted to know what worked best for other persons who had worked with the orthopedically handicapped student when the course began, you should be in a position to convey to other teachers what worked best for you. Certainly, you'll need to document the student's progress for school record purposes, for his parents, and for the student himself. If he is likely to seek employment your documentation will serve yet another purpose.

Finally, and importantly, by noting (however briefly) those aspects of his overall vocational experience which were achieved as planned, and which were not, you'll have a jump on planning for your next handicapped student. On the next page is a checklist of some of the program components you might want to evaluate. Again, the list is intended to be suggestive...you'll probably want to go into greater detail, more in line with your specific vocational function and concerns.

Adequacy of Program for Meeting the Needs of (name)_____		
Program Checklist	Appropriate	Possible Modifications
Initial career awareness	_____	_____
Pre-training assessment	_____	_____
Individualization strategy	_____	_____
Instructor techniques	_____	_____
Course content	_____	_____
Facilities	_____	_____
Materials	_____	_____
Equipment	_____	_____
Resource persons	_____	_____
Work experience opportunities	_____	_____
Coordination with service agencies	_____	_____
Follow Up	_____	_____

Follow Up

If you've been of real service to the handicapped student, and you've "turned him on" to his own potential and helped him to develop tangible skills, then its likely that you'll hear more about him (or from him) after he's left your class. If he moves on to other classes you'll probably stay in fairly close touch. If he graduates you should take the initiative to follow up and see how he's doing.

To know that you care will be important to him. It will give him an opportunity to check with you on any problems he's encountered on his own without feeling he's imposing. Constructive consultation may be all that you are able to give him, but it may also be that a chat with his employer will help in some way. In any case, you need to know how well he does after he leaves your class if you intend to determine whether your class had its intended beneficial effect.

Of course, no one can guarantee success, so don't get your hopes set too high. On the other hand, its a better than even bet that your knowledge, sincere effort, supportive attitude and patience will eventually pay off for the orthopedically handicapped student, maybe sooner than you think. There's no doubt that you'll be a positive influence on his life.

Review

1. In approaching a businessman about giving work experience opportunities to your handicapped student, explain whether you would take the same or a different approach if the student were
   a) paraplegic
   b) hemophiliac
   c) cerebral palsied with secondary speech problems

2. If your evaluation of efforts and outcomes suggests that the student did not benefit a great deal from your course, would this have a bearing on your accepting another handicapped student? Why or why not?

* * * * * * * * *

REFERENCES

Kirk, Samuel A. Educating exceptional children. Boston: Houghton Mifflin Company, 1972.

The President's Committee on Employment of the Handicapped. Forging a barrier free society. Report of the Twenty-seventh annual meeting, May, 1974.

Rusk, Howard A. Rehabilitation medicine. St. Louis: C.V. Moseley Company, 1971.

Resource Section

This section is intended to provide suggestions for those vocational educators who would like to learn more about the handicapped, and to provide leads for those who are seeking resources to help them serve the handicapped. It includes:

I. Bibliographic Resources
   A. Further study on the orthopedically handicapped
   B. Selected listing of published materials and resources

II. Agencies and Service Groups Providing Services to the Orthopedically Handicapped
   A. State of California
   B. Federal Offices and Agencies
   C. Private and Non-private Agencies and Organizations

I. Bibliographic Resources

A. Further Study on the Orthopedically Handicapped

Bleck, E., and Nagel, D. Physically handicapped children: A medical atlas for teachers. New York: Grune and Stratton, 1975.

Non-technical and amply illustrated, this publication defines terms and provides a basic description of the most common physically handicapping conditions which affect children.

Kirk, Samuel A. Educating exceptional children. Boston: Houghton Mifflin Co., 1972.

An excellent basic resource in the field of special education. Provides an integrated and unified approach to understanding various handicapping conditions and their educational implications.

Love, Don. Vocational education and the physically handicapped: Voices and views. South Pasadena, California: Hoskins and Associates, 1971.

As effort toward recognizing the problems and possibilities inherent in introducing handicapped students into the regular school environment. Although it deals specifically with the community college, this publication represents a comprehensive approach to integrating the handicapped in regular programs.

Love, Harold D. Educating exceptional children in regular classrooms. Springfield, Illinois: Charles C. Thomas, 1972.

Examines present policies and practices in serving handicapped students in regular classes. Each handicapped group is treated separately, with particular problems and solutions discussed.

Mallik, K. and Yuspeh, S. Bio-engineering services to the developmentally disabled adolescent. Final Report. Washington: George Washington University, Job Development Laboratory, 1975. ED113 892

A one-year demonstration project designed to increase the educational and vocational potential of 24 students with severe physical limitations. Contains descriptions and illustrations of adaptive devices for use by the physically handicapped.

B. Selected Listing of Published Materials and Resources

A bibliography of materials for handicapped and special education. Lambert, R.H. Center for Studies in Vocational and Technical Education, University of Wisconsin-Madison, 1975.

An extensive listing of vocational education resource materials for use in programs serving the handicapped. Materials can be obtained from: Center for Studies in Vocational and Technical Education, 321 Education Bldg. 1000 Bascom Mall, Madison, Wisconsin 53706

American National Standard ANSI. American National Standards Institute. Chicago: National Easter Seal Society for Crippled Children and Adults, 1961.

Contains specifications for making buildings and facilities accessible to the handicapped. Single copies available free from National Easter Seal Society.

Catalog of instructional materials for the handicapped. Clearinghouse Depository for Handicapped Students, Sacramento: California State Department of Education, 1972.

Provides free taping of instructional materials for handicapped students. Materials to be reproduced may be sent to: Master Tape Library
1025 P Street, Rm. 251
Sacramento, CA 95814

Architectural planning for the physically handicapped. Chicago: National Easter Seal Society for Crippled Children and Adults, 1976.

Brief checklist of recent publications compiled by the National Easter Seal Society. Single copies available free.

Handbook for the handicapped. Louise Friderici (Ed.). Tampa: University of South Florida, n.d.

A guide to serving handicapped students, this publication contains information about the opportunities and barriers that a handicapped student may encounter on campus. May be ordered from: Advisor to Handicapped Students, CTR217, University of South Florida, Tampa, Florida 33620

Into the mainstream. A syllabus for a barrier-free environment. Kliment, S.A. Washington: Rehabilitation Services Administration (DHEW), 1975. ED112 492

This publication contains practical information necessary to plan a barrier-free environment. Excellent source of information on published sources of information and concerned groups.

Places and spaces: Facilities planning for handicapped children. Aiello, Barbara. Reston, Virginia: The Council for Exceptional Children, 1976.

Contains diagrammed plans for adapting physical facilities for handicapped persons. Also contains a bibliography on current literature on barrier-free design, and a resource list of concerned persons, groups, and agencies.

Services for special needs. Bell Telephone System

Explains special equipment available for persons with communication, visual, or motion impairments. Available on request from your local Bell Telephone business office.

The Governor's Committee for Employment of the Handicapped: Organizational Handbook. The California Governor's Committee for Employment of the Handicapped. Sacramento: State of California Employment Development Department, 1974.

An information publication which details the goals, organization, and functions of this important task force. Includes a directory of local committees for Employment of the Handicapped.

Directory: Sources for handicapped job applicants. The California Governor's Committee for Employment of the Handicapped. Sacramento: State of California Employment Development Department, 1976.

A source book prepared for employers seeking to hire the handicapped. This 80 page publication lists the principle rehabilitation and training agencies within the state. State, regional, and local contacts are listed for the Employment Development Department, Department of Rehabilitation, public and private rehabilitation facilities, regional occupational programs, community colleges, and state colleges and the University of California. The Directory includes a brief description of each type of recruitment source and the services it offers to applicants and employers.

II. Agencies and Service Groups Providing Services to the Orthopedically Handicapped

A. State of California

California State Department of Education

Office of Vocational Education
721 Capitol Mall
Sacramento, CA 95814
Samuel Barrett, Director

Office of Special Education
721 Capitol Mall
Sacramento, CA 95814
Les Brinegar, Asst. Superintendent and Director

The Clearinghouse Depository for the Handicapped Student
721 Capitol Mall
Sacramento, CA 95814

An office which offers assistance in the procurement of specialized instructional materials and equipment for handicapped students. Provides consultant services for programs involving specialized use of media for instructional purposes.

Comprehensive Employment Training Act (CETA)
50 Fulton Street, Rm. 445
San Francisco, CA 94102
Howard Williams, Regional Manpower Coordinator

The purpose of CETA is to provide job training and employment opportunities for underemployed persons through a flexible and decentralized system of federal, state and local programs.

Office for Handicapped Individuals (in HEW)
50 Fulton Street
San Francisco, CA 94102
Martha Hislop, Regional Coordinator

Serves as the regional focal point, within the federal Office of Human Development, for program coordination and planning relevant to the physically and mentally handicapped.

California Area Learning Resource Center
600 S. Commonwealth Avenue, Suite 1304
Los Angeles, CA 90005

California area distribution center for specialized learning materials for handicapped students. Operates in cooperation with the National Center for Educational Media and Materials for the Handicapped (NCEMMH).

Below is a list of associate centers affiliated with the California Learning Resource Center, all of which circulate materials for handicapped students.

1. Anaheim City Schools
2. Placer County Office of Education, Auburn
3. Kern County Supt. of Schools, Bakersfield
4. San Juan Unified School District, Carmichael
5. Special Education Development Program, Chico
6. Contra Costa County, Concord
7. Imperial County Supt. of Schools, El Centro
8. Center for Exceptional Children, Eureka
9. Fountain Valley Elementary, Fountain Valley
10. School of Education/CSU-Fresno
11. Devereaux Schools in California, Goleta
12. Stanislaus County Dept. of Education, Modesto
13. Lancaster School District
14. Office of Supt. of Schools, Napa
15. Newport-Mesa Unified School District, Newport
16. Instructional Materials Lab. CSU-Northridge
17. Orange Unified School District
18. Palcentia Unified School District
19. Tehama County Dept. of Special Education, Red Bluff
20. Shasta County School Office, Redding
21. Rowland Unified School District, Rowland Heights
22. Sacramento City Unified School District
23. Sacramento County Office
24. Department of Education, Sacramento
25. Scholarship and Special Instructional Programs, Sacramento
26. Office of County Supt. of Schools, San Bernardino
27. Department of Special Education CSU-San Diego
28. Teacher Learning Center, San Francisco
29. Office of Education, San Jose
30. San Luis Obispo County Schools
31. Santa Barbara County Schools
32. Special Education, Santa Barbara
33. Sonoma County Office of Education, Santa Rosa
34. Lassen County School District, Susanville
35. Torrance Unified School District
36. Ventura Unified School District
37. Visalia School District

California State Department of Rehabilitation
830 K Street Mall
Sacramento, CA 95814
Edward V. Roberts, Director

Responsible, at the state level, for state-federal programs of vocational rehabilitation for the disabled. The disabled include persons handicapped by mental or physical illness or impairment. The primary objective of this agency is to prepare disabled persons for gainful employment. Under federal sponsorship, the State Department of Rehabilitation supports research and demonstration projects, training qualified personnel, and facilities construction and improvement.

District Offices

Chico District Office
Service Area: Colusa, Glenn, Butte, Siskiyou Modoc, Shasta, Lassen, Tehama, Trinity, Yolo, Yuba, Plumas, Sutter, Sierra, Nevada

Sacramento District
Sacramento, Placer, El Dorado, Alpine

Santa Rosa District
Del Norte, Humbolt, Lake, Mendocino, Napa Solano, Sonoma

Oakland District
Alameda

San Francisco District
San Francisco

Pleasant Hill District
Contra Costa, Marin

San Jose District
Santa Clara

Redwood City District
San Mateo

Stockton District
Amador, Calaveras, San Joaquin, Stanislaus, Tuolumne

Riverside District
Riverside, Imperial

San Bernadino District
Inyo, San Bernadino

Fresno District
Merced, Mariposa, Madera, Fresno

Bakersfield District
Kern, Kings, Tulare

Salinas District
Monterey, Santa Cruz, San Benito

Santa Barbara District
San Luis Obispo, Santa Barbara

Long Beach District
South Los Angeles

San Diego District
San Diego

Downtown Los Angeles District
Los Angeles

East Los Angeles District
East Los Angeles

Van Nuys District
Northwest Los Angeles

Inglewood District
West Los Angeles

Anaheim District
Orange

Los Angeles Mid-Cities District
South Central Los Angeles

Norwalk District
Los Angeles

Covina District
Los Angeles

Pasadena District
Northeast Los Angeles

The Governor's Committee for Employment of the Handicapped
State of California
Employment Development Department
800 Capitol Mall
Sacramento, California 95814

At the state level, the Governor's Committee on Employment for the Handicapped forms a link between the President's Committee and local committees within the State of California. The primary goal of the Governor's Committee is to create a climate of equal employment opportunity for handicapped persons. Through local organizations, the committee seeks to develop job information, educate the public concerning job needs and abilities of persons with handicaps, assist agencies concerned with employment of the handicapped, and works toward eliminating architectural barriers which limit the employment opportunities of the physically limited.

Publications are available from the Governor's Committee on affirmative action, hiring the handicapped, disabilities in employment, architectural barriers, employment guides for the handicapped person, demographic and statistical information, and a variety of relevant guides, handbooks, and periodicals. Films are also available.

Listings of these materials can be obtained by writing to California Governor's Committee for the Employment of the Handicapped, 800 Capitol Mall, MIC 37, Sacramento, California, 95814, or by calling (916) 445-0676

B. Federal Offices and Agencies

Office of Education

A branch of the Department of Health, Education, and Welfare, the Office of Education aids state and local educational agencies in the establishment and maintenance of school systems. This office is responsible for Federal financial assistance to local agencies for special studies and programs, and gathers and disseminates information on the condition and progress of education in the United States.

Bureau of Occupational and Adult Education

National Advisory Council on Vocational Education

Division of Vocational and Technical Education

Comprehensive Employment Training Act

Bureau of Education for the Handicapped

National Advisory Committee on the Handicapped

Office of Human Development

Focuses resources within the Department of Health, Education, and Welfare on serving groups with special needs: children and youth, the aged, the handicapped, native Americans, and people living in rural areas. This office is responsible for effective policy development and for program management at the federal level.

President's Committee on Employment of the Handicapped

Committee for Barrier-Free Design

Office for Handicapped Individuals

Rehabilitation Services Administration

Office of Developmental Disabilities

Architectual and Transportation Barriers Compliance Board

Library of Congress
Division for the Blind and Physically Handicapped
Washington, D.C. 20542

Maintains regional centers which produce books for the handicapped in braille, large print, and on tape. Centers maintain a library of transcribed materials and are able to produce materials on request to meet special and individual needs.

National Center on Educational Media
and Materials for the Handicapped
The Ohio State University
220 West 12th Avenue
Columbus, Ohio 43210

This agency provides a comprehensive national program of activities to facilitate the use of educational technology in instructional programs for the handicapped. Services are provided in cooperation with Area Learning Centers, Specialized Offices, and various public and private agencies.

C. Private and Non-profit Agencies and Organizations

The Arthritis Foundation
1212 Avenue of the Americas
New York, NY 10036

An organization whose primary purpose includes research, treatment, training for professionals, and public education about arthritis.

Muscular Dystrophy Association of America
1790 Broadway
New York, NY 10019

Voluntary health agency which fosters research and education on the cause and cure of muscular dystrophy.

National Association of the Physically Handicapped, Inc.
6473 Grandville Avenue
Detroit, Michigan 48228

Association to advance the social, economic, and physical welfare of the handicapped. Members consist of both handcapped and non-handicapped persons.

National Center for a Barrier Free Environment
7315 Wisconsin Avenue N.W.
Washington, D.C. 20014
Edward H. Noakes, Chairman, Board of Directors

Coalition of major groups active in promoting a barrier-free architectural and transportation environment.

National Multiple Sclerosis Society
257 Park Avenue South
New York, NY 10010

Promotes research and public education. Also provides services to persons disabled by multiple sclerosis and helps to establish treatment centers.

National Paraplegia Foundation
333 North Michigan Avenue
Chicago, Illinois 60601

This organization carries out activities to inform and educate concerned professionals and the general public. Activities include physical and mental rehabilitation, vocational rehabilitation and placement, and legislation for the handicapped.

National Tuberculosis and Respiratory Disease Association
1740 Broadway
New York, NY 10019

Federation of state and local associations interested in the prevention and control of lung cancer.

United Cerebral Palsy Associations, Inc.
66 East 34th Street
New York, NY 10016

Association of groups aiding the cerebral palsied. Supports research, and sponsors professional and public education about cerebral palsy.

Assessment Section

The questions in this section are intended as a check of your general understanding of the instructional considerations involved in teaching handicapped students in regular vocational classes.

The problems which follow are not "formula" questions in which a precise and exact answer is possible. Rather they are meant to stimulate your thinking and cause you to reflect on the content of the module as you write or type your responses on separate sheets of paper.

If you intend sending your responses to a cooperating agency for evaluation, be sure that you

1. Indicate the complete name of the module
2. Number all responses (Questions 1a, 1b, etc.)
3. Enclose your name and return address.

Problem 1.

After learning that you will be teaching a health impaired student (hemophiliac) in your regular class (lens grinding course) you begin checking for background information. You find out that his attendance record is very spotty and that his school work suffers as a consequence.

a) How might you determine whether the absences are health related and therefore something you should adjust to?

b) How would such an attendance pattern affect your cooperative goal setting and instructional strategy?

c) What possible arrangements would be worked out with a work experience employer if poor attendance was likely there as well?

Problem 2.

What tactic(s) would you take to assure the cooperation and understanding of regular vocational classmates of a handicapped student if

a) he displayed his frustrations by aggressively blaming them for things that go wrong?

b) he was unable to reach their standards of output but did quite well in terms of his own more limited goals?

c) he was physically deformed and had previously been subjected to derisive remarks elsewhere on campus?

Problem 3.

A wheelchair bound student wants to take your class. What physical problems is he apt to encounter and what might be done about them if

a) you teach a horticulture class, which involves greenhouse work?

b) your class is on the first floor of the vocational education wing, but there is a flight of six steps to reach that floor?

c) you teach foods preparation and the kitchens are equipped with standard appliances and overhung storage cabinets?

Problem 4.

A student with arthritis transfers to your school from another district and is interested in your class. You teach a course in cabinet-making that involves being on your feet and using a fair amount of stamina and strength. What actions might you take to

a) determine whether the course is a suitable one for the student?

b) carry out safe but informative job sample assessments to see what kinds of skills he currently possesses?

c) lighten the physical burdens (lifting, etc.) he might face during class itself?

AMERICAN INSTITUTES FOR RESEARCH